

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the application:

81. (Previously presented) An osteogenic protein comprising one or more polypeptide chains capable of inducing endochondral bone formation when disposed within a matrix and implanted in a mammal, wherein said polypeptide chain is further characterized as having cysteine residues in the same relative positions as the cysteine skeleton sequence:

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      1      10      20      30      40
XXXXXXXXXXXXXXXXXXXXXXXXXXXXCXXXCXXXXX
                50      60      70
XXXXXXXXXXXXXXXXXXXXXXXXXXXXCCXXXXXX
                80      90     100
XXXXXXXXXXXXXXXXXXXXXXXXXXXXCXCX,
```

or a point mutation thereof, wherein said protein or said mutant protein is capable of inducing endochondral bone formation in a mammal, and wherein each X represents any amino acid.

82-87. (Canceled)

88. (Previously presented) A device for implantation in a mammal, comprising:

a biocompatible, in vivo biodegradable matrix defining pores of a dimension sufficient to permit influx, proliferation and differentiation of migratory progenitor cells from the body of said mammal; and

a substantially pure osteogenic protein comprising one or more polypeptide chains capable of inducing endochondral bone formation when disposed within a matrix and implanted in a mammal, wherein said polypeptide chain is further characterized as having cysteine residues in the same relative positions as the cysteine skeleton sequence:

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      1      10      20      30      40
XXXXXXXXXXXXXXXXXXXXXXXXXXXXCXXXCXXXXX
                50      60      70
XXXXXXXXXXXXXXXXXXXXXXXXXXXXCCXXXXXX
```

80

90

100

XXXXXXXXXXXXXXXXXXXXXXXXXXXXCXCX,

or a point mutation thereof, wherein said protein or said mutant protein is capable of inducing endochondral bone formation in a mammal, and wherein each X represents any amino acid.

89-95. (Canceled)

96. (Currently amended) A method of inducing endochondral bone formation in a mammal comprising the step of implanting the device of ~~any one of~~ claims 88[[-95]] in said mammal at a locus accessible to migratory progenitor cells of said mammal.

97. (Canceled)